

In the Abstract

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ABSTRACT

The invention relates to a method and a device for measuring a gas consumption by means of a gas meter (1). A gas meter (1) with thermal mass flow sensor (1a) for determining mass flow signals (S_M) and with a calibration as energy meter for outputting energy value signals (S_E) is known. According to the invention, a gas type is determined by the gas meter (1) insofar as combustible and non-combustible gas mixtures (3) are differentiated. The gas meter (1) is operated, in the case of a non-combustible gas mixture (3), with calibration in mass or standard volume units (l/min) and, in the case of a combustible gas mixture (3), with calibration in energy units (kWh). Embodiments concern inter alia: measurement of a gas parameter (λ , α , c , η) of the gas (3) or determining the gas type; gas quality sensor (1a) with an identical construction to thermal flow sensor (1a); measuring intervals lengthened in the case of non-combustible gas (3) and shortened in the case of combustible gas (3). Advantages are inter alia: reliable energy measurement because of automatic differentiation between non-meterable gas (3) and high-quality useful gas (3); detection of manipulation attempts; and automatic heat value tracking even without heat value measurement.

(Fig. 1)